

REMARKS

In the Office Action dated June 5, 2003, claims 2 and 27 were rejected under 35 U.S.C. § 102 over Metcalfe (US 2002/0166668); claim 4 was rejected under § 102 over Wuenschel (U.S. Patent No. 3,812,912); claim 6 was rejected under § 102 over Reid (U.S. Patent No. 6,109,355); claims 8-11 and 39 were rejected under § 102 over Mohaupt (U.S. Patent No. 4,081,031); claims 4, 42, and 43 were rejected under § 102 over Ohmer (U.S. Patent No. 6,056,059); claims 3 and 35 were rejected under § 103 over Arizmendi (U.S. Patent No. 5,941,313) and Wuenschel; claim 5 was rejected under § 103 over Castano-Mears (U.S. Patent No. 6,457,518) and Wuenschel; and claim 7 was rejected under § 103 over Gazda (U.S. Patent No. 4,750,560) and Reid.

Applicant gratefully acknowledges the allowance of claims 40 and 41, and the indication that claims 28-34 and 36-38 would be allowable if rewritten in independent form. Claim 32 has been amended into independent form to place it in condition for allowance.

It is respectfully submitted that independent claim 2 is allowable over Metcalfe. The Office Action cited to paragraph [0030] of Metcalfe as disclosing a liner of a superplastic material. Metcalfe actually discloses that the liner may be formed of a relatively ductile material, such a soft material (soft metal) that can be "plastically deformed during expansion of the liner portion." Just because a material is soft or ductile does not make it superplastic. As disclosed by the present application, a superplastic material exhibits high elongation or deformation, with elongation to failure in excess of 200% usually indicative of superplasticity. Patent Application, pp. 3-4. The ductile material disclosed in Metcalfe is *not* a superplastic material. Therefore, Metcalfe does not disclose an element formed of a superplastic material to perform a predetermined downhole task.

As taught by the present application, "[f]or superplastic behavior, a material must be capable of being processed into a fine equi-axed grain structure that will remain stable during deformation." Patent Application, page 4. There is no teaching or suggestion whatsoever in Wuenschel that its disclosed aluminum material has been processed to exhibit superplastic behavior.

The Office Action is apparently equating ductility with superplasticity. There is no support for this assertion.

Independent claim 6 is allowable over Reid. Again, the Office Action has equated elastically deformable or soft as indications of superplasticity.

Reid does not disclose an element formed of a superplastic material.

With respect to independent claims 8 and 11, the aluminum tubing or housing of Mohaupt is *not* formed of a *superplastic* material.

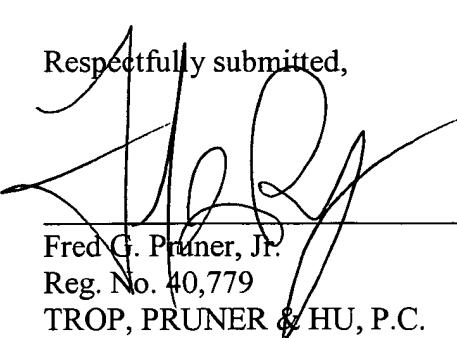
Independent claim 3 was rejected over Arizmendi and Wuenschel. As conceded by the Office Action, Arizmendi fails to disclose a superplastic material. Wuenschel also fails to disclose a superplastic material. Although Wuenschel state that its aluminum pipe can withstand a strain of 180% before breaking, which is *not* an indication of superplasticity. Therefore, even if Arizmendi and Wuenschel can be properly combined, the combination fails to teach or suggest the claimed invention.

Independent claim 5 was rejected over the hypothetical combination of Castano-Mears and Wuenschel. Neither reference teaches use of a superplastic material-- therefore, the combination of Castano-Mears and Wuenschel, even if proper, does not teach or suggest the claimed invention.

All dependent claims are allowable for at least the same reasons as corresponding independent claims. Allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504 (SHL.0102US).

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Respectfully submitted,


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